



# Nebraska Resources

## Newsletter

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### Inside this Issue:

Issue 5, Winter 2002

- Administrative Services & Information Technology Division/cover and pages 2 and 4
- Water Well Registrations Go On-Line/cover and page 3
- National Hydrograph Dataset Projects/page 3
- Flood Mitigation Planning Study for North Platte/Page 4
- Carbon Sequestration Report/page 5
- Lake Ericson Project Approval/page 5
- Flow Meters/page 5
- Watershed Tract Sold/page 3

### Agency Numbers to Remember

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**Editor's Note:** *The Administrative Services and Information Technology Division article in this newsletter is the fourth in a series on DNR Divisions. A future newsletters will feature the five Field Offices that the agency maintains*

## Administrative Services and Information Technology Division

By Gayle Starr

**The Administrative Services and Information Technology Division** includes several diverse sections that provide a number of internal services for the agency as well as providing services for external customers. A total of fourteen employees are in this division, divided into four separate sections.

**Administrative Services** - This section includes four employees who are responsible for accounting, personnel, purchasing, payroll, benefits, budget and inventory for the agency. In carrying out this function they deal with all agency personnel as well as numerous vendors, personnel in other state agencies, benefits representatives, contractors, Natural Resources Districts (NRDs) and other units of government.

More specific duties for personnel in this section include the preparation and processing of all invoices and employee expense vouchers for payment; completion of purchase orders for all equipment, supplies, and services; arrangements for vehicles; maintenance of employee records; payroll processing; benefits administration; maintenance of financial records; affirmative action administration; and maintenance of an equipment inventory. This section is also responsible for the checking and processing of claims for the Soil and Water Conservation Fund and the Water Well Decommissioning Fund as well as the record keeping for these two funds.

*Continued on page 2*

## Water Well Registrations Go On-Line

By Susan France

As of January 1, 2002, water well contractors can submit water well registrations to the Department of Natural Resources (DNR) electronically over the internet. Registrations can also be submitted to the Department on paper forms as in the past.

The on-line process was made possible by a cooperative effort with Nebraska water well contractors, Health and Human Services System (HHSS), Nebraska OnLine, Department of Environmental Quality(DEQ), and DNR staff. A committee consisting of water well contractors, HHSS staff, DEQ staff, and DNR staff helped refine the water well registration form. Nebraska OnLine and DNR staff wrote computer programs and interfaces to make the electronic process work. Fees for maintaining the new process are from part of the registration fees that fund HHSS' Water Well Contractor's Licensing program.

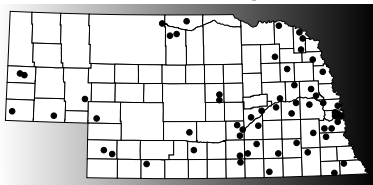
There are several major advantages of the new on-line registration process. The big advantage will be a reduction in errors when information was transferred from one form to another. For the water well contractor, some of the advantages include: (1) A monthly billing system for registrations submitted, rather than having to write a check for each submittal. (2) The on-line form has many checks within the program to make sure that accurate information is received (for example, the programs check to make sure that the county and natural resources district listed on the form agree with the legal description submitted on the form). (3) Mailing costs are reduced. (4) Registrations can be submitted anytime of the day or night.

*Continued on page 3*

**FUNDS** – The **Department of Natural Resources administers six resources related funds** that provide financial assistance to enhance Nebraska's natural resources. The Natural Resources Commission (NRC) has a significant responsibility in the administration of five of these six funds.

**The Resources Development Fund** provides grant and/or loan funds to political subdivisions for natural resources projects. Nebraska NRDs are the most common project sponsor, but cities, counties and irrigation districts have also been sponsors. Projects are generally multipurpose in nature, but often include flood damage reduction, sediment and erosion control, recreational development, groundwater recharge, improved irrigation water management and fish and wildlife enhancement. In order for a project to be eligible it must be economically and financially feasible, the plan of development must be satisfactory and the plan of development minimizes any impact on the natural environment. **Since the inception of the fund in 1974 a total of 60 projects have been approved for over \$50,000,000 of funds.**

#### Development Fund Project Location Map



**The Soil and Water Conservation Fund** was created in 1977 to provide financial assistance to private landowners for the installation of soil and water conservation practices. Among the eligible practices for cost-share assistance are

terraces, terrace outlets, irrigation reuse pits, grade stabilization structures, dams, diversions, pasture and range seeding, planned grazing systems, irrigation water management and windbreaks. The NRC determines the list of eligible practices, establishes

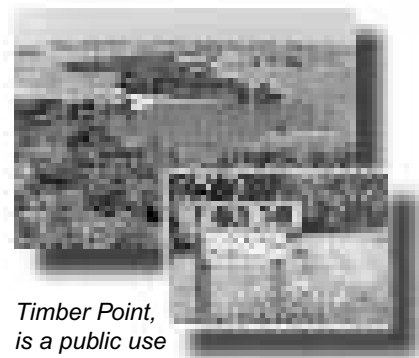
the operating procedures for the fund and annually allocates the funds among the 23 NRDs. The USDA Natural Resources Conservation Service provides the technical assistance needed in planning and installing the conservation measures. The NRDs are responsible for the administration of the program at the local level including accepting applications from landowners, setting priorities, and working with the landowners and contractors to complete the practices and prepare the necessary documentation for submittal to the Department for payment. **Since 1977 this fund has provided over \$60,000,000 in cost-share assistance to Nebraska landowners.**

**The Natural Resources Water Quality Fund** was established by the Legislature in 2001 to provide funds to NRDs for support of their water quality programs. The sources of funds are pesticide registration fees and pesticide applicator licenses collected by the Nebraska Department of Agriculture,

in addition to a \$250,000 state general fund appropriation. The funds are allocated among the NRDs and administered based on rules and regulations established by the NRC. The annual allocation is expected to be about 1.25 million dollars per year and the districts must provide three dollars of local matching money for each two dollars from the fund. This fund replaces the Natural Resources Enhancement Fund which was in place for four years and was funded by a one dollar per ton fee on commercial fertilizer sales.

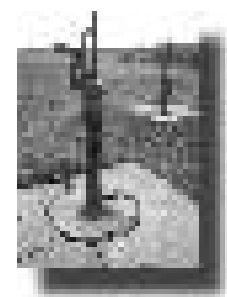
#### The Small Watersheds Flood Control Fund

was established in 1963 to provide state financial assistance for the acquisition of the necessary land rights for flood control structures. Land rights can be in the form of easements, rights of way or purchases. The fund can financially participate in only 25% of the number of land rights involved in a flood control project. When land is purchased for a project it must be sold within ten years (*see Watershed Tract Sold article on page 3*), with the proceeds of the sale being returned to the fund for reuse. A special provision of the law allows any political subdivision to acquire any fee title property at appraised value, provided that the political subdivision agrees to utilize the property for public purposes such as recreation or fish and wildlife enhancement. **To date a total of 21 tracts have been retained for public use.**



*Timber Point, is a public use area located in Butler County*

**The Water Well Decommissioning Fund** was established in 1994 to provide cost-share assistance to encourage the decommissioning or plugging of water wells that are unused or abandoned. The source of funding is thirty dollars from each well registration fee received by the department. Participating NRDs (*20 of 23 participate*) administer the program at the local level and receive an allocation of state funds based on the proportionate share of wells decommissioned the previous year as compared to the total number decommissioned by all participating NRDs. The fund receives about \$160,000 – \$180,000 per year.



**The Soil Survey Fund** was established in 1976 to provide state funds to accelerate the completion and updating of soil surveys for all counties in the state. The funds appropriated by the Legislature are used to contract with the Conservation & Survey Division of UNL to supplement their soil survey program. The Conservation & Survey Division is the state cooperating agency with the Natural Resources Conservation Service of USDA on the cooperative soil survey program.

## Shorts

### Watershed Tract Sold

By Tom Pesek

An 80-acre tract associated with **Upper Little Nemaha Site 36** south-east of Bennet was sold at public auction on January 9, 2002. The tract is comprised of approximately 32 acres of bottomland cropland and 40 acres of pasture. The tract brought a high bid of \$1,600 an acre, which was approved by the Natural Resources Commission at its January 30, 2002 meeting. The Nemaha NRD utilized the **Small Watersheds Flood Control Fund** to purchase the tract in 1999 for \$1,355 an acre. The proceeds from the sale will be returned to the Small Watersheds Flood Control Fund to assist sponsors of future flood control projects with the acquisition of necessary land rights.

### New Officers Elected

At their annual organizational meeting held January 30, 2002, members of the Nebraska Natural Resources Commission elected officers for the coming year. **Elected to serve a one-year term as Chairperson of the Commission was Joseph Hergott of Hebron and elected as Vice-Chairperson was Roger Korell of Bayard.**

Joseph Hergott has been a board member of the Little Blue Natural Resources District for over 25 years and represents the Little Blue River Basin on the Commission where he has served as a member since 1995.

Roger Korell was appointed by Governor Johanns in 1999 to represent the interests of Nebraska's surface water irrigators on the Commission.

These two men will head the sixteen-member Nebraska Natural Resources Commission which has broad responsibilities in soil and water conservation and development in Nebraska.

## National Hydrography Dataset Projects Move Forward

By Steve Gaul

Planning and Assistance Division staff are coordinating efforts to develop 1:24,000 hydrography dataset projects for two separate Nebraska watersheds. The National Hydrography Dataset (NHD) would present water features at the same scale as other state digital mapping packages and provide information that could be used in water quality assessment, water rights administration, bridge design, and a variety of activities involving spatial analysis.

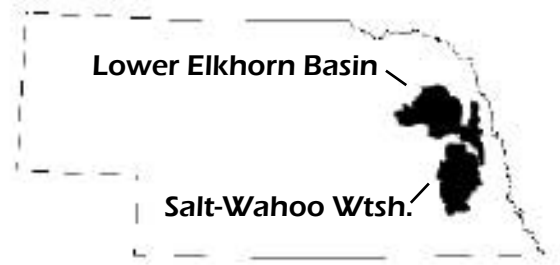
Work is currently underway on an NHD for the **Salt-Wahoo Watershed** under a grant from the Nebraska Information Technology Commission's Community Technology Fund. That grant went to the Lower Platte North Natural Resources District and is being used for NDNR technical coordination and compilation efforts as well as to reimburse student workers hired through the UNL Conservation and Survey Division and stationed at NDNR. Work should be completed and sent to the U.S.

Geological Survey for quality assurance/checking by mid-summer. A second grant from the Commission's Government Collaboration Technology Fund is to be used to help fund a similar effort in the **Lower Elkhorn Basin**.

The National Hydrography Dataset concept was originally developed jointly by the U.S. Geological Survey and the Environmental Protection Agency to provide a common reference dataset that can be compiled for all states. In Nebraska the GIS Steering Committee has prioritized the NHD as one of the few databases that provide the underlying framework for coordinated GIS development and widespread datasharing and integration.

Project coordinator Josh Lear notes that transferring water features to an electronic format isn't always a "cut and dried" process. *"Water is somewhat of a moving target. Lakes can expand and contract. Flows and channels change. Using available photography, it is not always easy to determine where an intermittent stream may flow. However, the final product will enable us to do everything from layering of water features with other spatial features to sophisticated modeling of flows. Users can also assign any number of attributes to individual detailed stream segments depending upon needs. That can be especially helpful in water quality work, but also can have applications in water administration. This is a very useful dataset"*.

Planning is underway to expand the process to other watersheds when, or as, funds become available.



### On-Line Registrations Continued from page 1

For DNR there are also advantages. (1) Department staff will not have to reenter the data into the data base. Accepted registrations are automatically converted into DNR's registration data base which is a great time saver. (2) The new program has even more checks than the on-line program to make sure that accurate information is received. For example, the new program checks to make sure that the legal description given matches the GPS coordinates submitted. (3) Fewer checks are processed which is a cost savings.

Approximately 50 water well contractors have already begun using the new on-line process.

## Flood Mitigation Planning Study for the City of North Platte

By Steve McMaster

In December, the Nebraska Department of Natural Resources (NDNR) officially completed the signing of contracts to conduct a flood mitigation planning study for the City of North Platte. Being situated at the confluence of the North Platte River and the South Platte River, there is extensive floodplain area identified for this city. Approximately 25% of all flood insurance



policies in Nebraska are taken out for properties in North Platte. Floodplain management and the cost of flood insurance premiums have both been topics of great consternation for the city's residents. With the well-rounded focus of this flood mitigation study, the city's floodplain management program will become a credit to the community rather than a burden.

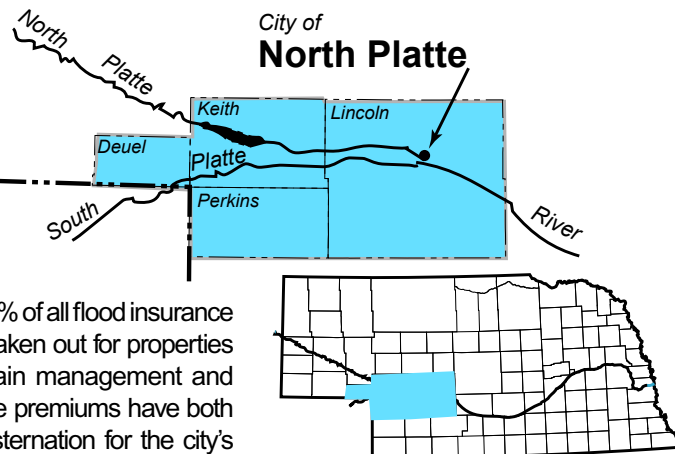
Upon the adoption of the Comprehensive Community Plan 2010 in December of 2000, North Platte worked with the NDNR and the Federal Emergency Management Agency (FEMA) to revamp their floodplain management ordinance. Currently, the NDNR has assisted the city to overhaul their processes for building permits, floodplain development permits, floodplain elevation certificates, and floodplain letters of compliance. The city also plans to work together with the Lincoln County Board of Realtors to address the flood insurance impacts and to better educate all parties in floodplain insurance practices.

The city is working to increase the effectiveness of their floodplain regulatory capabilities, and the flood mitigation study will complement these efforts in several ways. The biggest impact of this plan will be a restudy of the floodplain boundaries for the flood sources in North Platte and its two-mile extraterritorial zoning jurisdiction. The current Flood Insurance Rate Maps used for enforcement in North Platte became effective in 1979. With more than twenty years of additional hydrologic data, the restudy will update the flood elevation profiles and the mapped floodplain areas. If areas are taken out of the floodplain, different development standards would apply to new development and flood insurance may no longer be required. If areas are not taken out of the floodplain, perhaps the identified depth of flooding will not be as deep – this could reduce the expense of flood insurance premiums. At any rate, the new floodplain maps will be more accurate and will significantly enhance their use in planning and enforcement.

The flood mitigation plan will also incorporate a vulnerability analysis for all properties in the floodplain. This entails the surveying of each structure in the floodplain and can be an extremely effective planning tool. With the great number of properties in the floodplain in North Platte, it is easy to understand why this planning study is scheduled to take two years to complete. With an understanding of the community's vulnerability, North Platte citizens will then decide what they think should be done to reduce flood damages in their community through public meetings.

In addition to the in-kind engineering work supplied by Lincoln County, funding assistance being supplied is: \$107,275 from FEMA programs administered by NDNR, \$16,525 from NDNR, and \$46,000 from the North Platte Economic Development Fund.

Similar flood mitigation plans have been completed for the communities of DeWitt, Tekamah, Arlington, Beatrice, Superior, Fort Calhoun, and Sarpy County. Plans are currently underway or starting in Randolph, Milford, Ponca, and the Cole Creek Watershed of Omaha. For more information about flood mitigation studies for your community, contact Steve McMaster at (402) 471-3957.



*Administrative Services and Information Technology Division Continued from page 2*

**PUBLIC INFORMATION** – The one employee in this area is responsible for the agency newsletter, develops power point presentations for staff members, prepares brochures for various agency programs, develops graphic materials for agency use, manages printing of reports and other materials, prepares news releases, contributes to content for the agency web site, and handles information requests from the public.

**INFORMATION TECHNOLOGY** – This section contains both the Natural Resources Data Bank as well as the support structure for the Department's computer operations. The Natural Resources Data Bank was established by state

statute in 1969 and is charged with obtaining, processing, and storing a data base of natural resources information. The information is gathered from various local, state and federal agencies and made available in various formats and is accessible via the internet. Much of the information available in the data bank has been processed utilizing geographic information system (GIS) technology and is available in various geographically referenced formats. This section is also responsible for maintaining the Department's computer infrastructure including data storage, backup systems, personal computer support and computer network.



## Flow Meters

By Gayle Starr

In 1998 the Nebraska Legislature appropriated funds (a total of \$1.5 million over three years) to cost-share on the purchase and installation of water measuring devices on wells (other than those used for domestic purposes) in the Republican River Basin alluvium. This appropriation was added to the existing **Nebraska Soil & Water Conservation Fund** and was operated as part of that program. The Natural Resources Commission chose to limit the cost-share program on water measuring devices to only flow meters. One of the conditions imposed upon the Natural Resources Districts (NRD), who were charged with administering this program at the local level, was that each involved NRD must establish a program requiring the installation of measuring devices on a minimum of ninety percent of active eligible wells by June 1, 2001. Each of the four NRDs involved did enact such a program and did accomplish the ninety percent requirement. In 1999 the Legislature amended the law to allow funds to be used to meter surface water withdrawals in the Republican River Basin. A total of 1,713 water wells and 82 surface water withdrawals were metered at a total cost of \$680,356.

In July of 2001 the Natural Resources Commission took action to reserve the remaining Republican River Basin funds for cost-share on flow meters on wells (other than domestic wells) in any part of the Republican River Basin. The Commission also took action to set aside a total of \$500,000 to cost-share on irrigation well flow meters anywhere in the state, outside of the Republican River Basin, and in an area that is included in an NRD groundwater management area. The \$500,000 appropriation for this purpose was subsequently reduced to \$341,834 as a result of budget reductions made by the Legislature in their November 2001 special session.



## Department of Natural Resources Issues Carbon Sequestration Report

By Steve Gaul

In December the Department of Natural Resources issued a report entitled "*Carbon Sequestration, Greenhouse Gas Emissions, and Nebraska Agriculture – Background and Potential*". Carbon sequestration is the use of practices, technologies, or other measures that increase the retention of carbon in soil, vegetation, geologic formations, or the oceans

with the effect of offsetting carbon dioxide emissions from other sources. It is one of the strategies that has been identified for addressing global warming concerns. Issued in fulfillment of the requirements of LB 957 (2000), the report delves into items such as agricultural practices that increase carbon storage and minimize emissions, measuring and modeling of carbon sequestration, and legal and economic issues related to carbon sequestration. The report also contains the recommendations of the Carbon Sequestration Advisory Committee. The report was funded in part through grants from the Nebraska Environmental Trust and the Nebraska Public Power District. The report is available on the Department website at <http://www.nrc.state.ne.us/new2001/CarbonSequestrationFinal.pdf> and limited copies are available upon request.

<http://www.nrc.state.ne.us/new2001/CarbonSequestrationFinal.pdf>

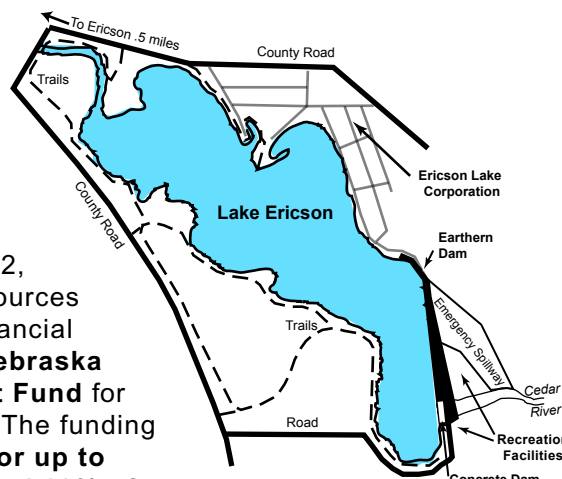
## Lake Ericson Project Approval

By Tom Pesek

At its January 30, 2002, meeting, the Natural Resources Commission approved financial assistance through the **Nebraska Resources Development Fund** for the Lake Ericson Project. The funding is in the form of a **grant for up to \$535,635.45, not to exceed 63% of the total eligible local project cost of \$850,215.00.**

The project will provide for the rehabilitation and improvement of an aged dam on the Cedar River near Ericson and the development of public recreation facilities at the site. The facilities will include RV and tent camping areas, picnic shelters, restroom, canoe portage, handicap fishing access, and a hiking trail.

The **Lower Loup NRD** and the **Lake Ericson Corporation** co-sponsored the project and will share the remaining 37% of the total project cost. Project design is slated to begin this winter.

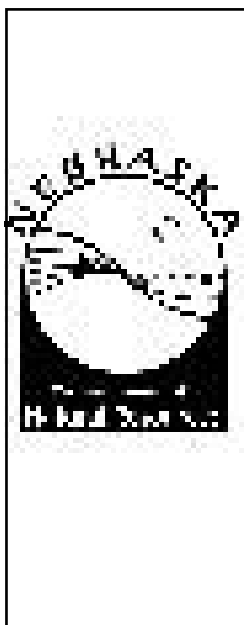




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## Nebraska Resources page 6



### State of Nebraska

Mike Johanns, Governor

### Nebraska

### Department of Natural Resources

Roger K. Patterson, Director

The *Nebraska Resources* is a quarterly publication of the Nebraska Department of Natural Resources and is edited by Terry L. Cartwright, Public Information. Your comments and or suggestions are welcomed.

#### WATER EQUIVALENTS TABLE

1 Cubic foot.....	7.48 gallons.....	62.4 lbs. of water
1 Acre-foot.....	43,560 cubic feet.....	325,851 gallons
An acre-foot of water covers 1 acre of land 1 foot deep		
1 cubic foot per second (cfs).....	448.8 gallons per minute	
1 cfs.....	646,272 gallons per day	
For 24 hours.....	1.984 acre-feet	
For 30 days.....	59.5 acre-feet	
For 1 year.....	724 acre-feet	
1 million gallons.....	3.07 acre-feet	
1 million gallons per day (mgd).....	1,121 acre feet per year	
1,000 gallons per minute (gpm).....	2.23 cfs	
1,000 gpm.....	4.42 acre-feet per day	
\$ .10 per 1,000 gallons.....	\$32.59 per acre-foot	

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An acre-foot supplies a family of 5 for 1 year  
An acre-foot irrigates ½ acre of corn in most areas of Nebraska

Nebraska Department of Natural Resources....

....dedicated to the sustainable use and proper management of the State's natural resources.